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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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November 8, 2004

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EDMC

Mr. Roy J. Schepens
Office of River Protection
United States Department of Energy
P.O. Box 450, MSIN: H6-60
Richland, Washington 99352

Dear Mr. Schepens:

Re: Review of the Double Shell Tank (DST) Permit Application, Rev. 0b, Notice of
Deficiency (NOD) Response Table, Submitted to Ecology on June 9, 2004

The Washington State Department of Ecology (Ecology) has reviewed the response table (as referenced in the Hanford Federal Facility Agreement and Consent Order [HFFACO] Figure 9-2, Box 4) for the DST Permit Application Rev. 0b. Enclosed are Ecology's responses to Chapters 3, 12, 13, and Appendix 3A. Ecology will stage submittals of the remaining chapter responses per discussion with your contractor. The staged approach will allow Ecology to complete review of the remaining responses while resolving NOD issues with the United States Department of Energy – Office of River Protection.

Also enclosed is the proposed schedule outlining the chapter submittals and the number of days for workshop activities on those chapters. This schedule is in accordance with HFFACO, Figure 9-2. The NOD workshop is scheduled for two hundred and ten (210) calendar days, which is approximately one hundred and fifty (150) working days.

Please contact me to set up meeting times and location for the NOD workshops. If you have any questions regarding this letter, please contact, me at 372-7912 or Jeff Lyon at 372-7914.

Sincerely,

Brenda K. Jentzen
Permit Lead, Double Shell Tank System
Nuclear Waste Program

BKJ:lkd
Enclosures

cc: See next page

Mr. Roy J. Schepens

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cc: Jim Rasmussen, USDOE
Edward Aromi, CH2M
Moussa Jayarssi, CH2M
Phil Miller, CH2M
Stuart Harris, CTUIR
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Russell Jim, YN
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Ro Vinson, PEC
Administrative Record: DST and Tank Waste Storage
CH2M Correspondence Control
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WASHINGTON STATE DEPARTMENT OF ECOLOGY
DOUBLE-SHELL TANK PERMIT APPLICATION NOTICES OF DEFICIENCY
RESPONSE TABLE
11/08/04

No.	Position in Document	Comments/Response Chapter 3 & Appendix 3A	Regulatory Citation
*	Chapter 3, Page 13, Section 3.3	Revise the text to identify where the specific analytes are identified. Table 3-1 is not the correct reference. This was not in the original NOD sent to DOE; however, it is an error that needs corrected in the chapter 3 text.	
1	Chapter 3 Appendix 3A Page 12, Section 3.0	<p>Identify the parameters for each dangerous waste, or non-dangerous waste. Table 3-1 does not identify specific analytes.</p> <p>Response: accept, the compatibility DQO (HNF-SD-WM-DQO-001) has a list of analytes required for waste transfers. Since this DQO supports the Compatibility Program, the list may be updated as changes are made in the program.</p> <p>Section 3.0 will be revised to reference the DQO table.</p> <p>Ecology Response: Disagree; in addition to compatibility, the purpose of the WAP is to assure that the analysis contains information necessary to manage the waste in accordance with the requirements of WAC 173-303-300 (5)(a-f). Include other parameters used in confirming your knowledge about the dangerous waste.</p>	WAC 173-303-300 (5) (a)
2	Appendix 3A Page 13, Section 3.4	<p>Identify all the waste codes accepted in the DST system. The DST system accepts more than ignitable and reactive waste. Section 2.1 states that all waste currently in the DST system has been assigned the same dangerous waste codes. All the codes identified in the DST system Part A, Form 3 Permit Application apply.</p> <p>Response: accept will revise wording to reference all dangerous waste numbers from the DST Part A form 3.</p> <p>Ecology Response: Agree, upon Ecology approval of revised text.</p>	WAC 173-303-395
3	Appendix 3A Page 19, Section 4.0	<p>Identify sampling methods. Reference is made to maintaining sampling documents in the DST operating record, however, the regulation and general facility RCRA permit condition II.D.3, requires that the methods for obtaining representative samples for analysis be identified in the WAP.</p> <p>Response: accept, the following text will be added to section 4.1.2: "Sampling methods at tank farms are specified in the TSAP for DSTs. Generally grab samples (bottle or clamshell) and cores are collected. Non TF generators have their own sampling methods that are included in their TSAPs or equivalent documents. Representative samples are obtained by agitating or recirculating before/during sampling. Representative samples are required to meet DST waste acceptance, however there are some limitations on the existing site waste management systems (in particular PFP)."</p> <p>Ecology Response: Disagree; identify in the WAP representative sampling methodologies/types pertaining to the waste categories. List limitations of methods to obtain representative samples, the criteria to establish the frequency for incoming and outgoing wastes, list the number and types of samples to incoming and outgoing waste. List exceptions of waste categories and/or waste streams which cannot be sampled.</p>	WAC 173-303-300(5) (c)

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No.	Position in Document	Comments/Response Chapter 3 & Appendix 3A	Regulatory Citation
4	Appendix 3A Page 19, Section 4.1.2	<p>Identify specifically what document or documents control sampling. The first sentence states that sampling is controlled by the issuance of tank-specific SAPs; the statement is later made that in some instances, a SAP is not issued. Section 5.2 states that the waste stored in the DST system will follow the methods specified by applicable DQOs.</p> <p>Response: accept, depending on the specific generator the document used to control sampling could be called a 'SAP' or a 'process memo'. Other generators such as PFP use title of 'Sample Schedule'. All sampling documentation must provide the required information so that the TFC can assess whether the proposed transfer meets DST waste acceptance criteria.</p> <p>Text will be revised to reflect the different terminology.</p> <p>Ecology Response: Accept; however, the permittee shall include language to describe "the required information."</p>	WAC 173-303-310 and WAC 173-303-395(6)
5	Appendix 3A Page 22, Section 5.0	<p>Provide testing methods. Testing methods have not been identified.</p> <p>Response: accept the following text will be added to Section 5.2 "Analytical methods are specified in each SAP or sampling document. This allows for method development, however all methods must meet HASQARD criteria to be acceptable."</p> <p>Ecology Response: Disagree; WAC 173-303-300 does not mention the use of SAPs for determining analytical methods. SAPs address closure activities; the requested information is required by a facility before "storage, treatment, or disposal" waste. Describe and identify the analytical methods used by the TDS units to analyze the parameters identified in Section 3.0 for the waste categories. Identify the type of method used at the laboratory.</p>	WAC 173-303-(5)(b), 110(2)(a)

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6	Appendix 3A Page 23 Section 6.1	<p>Since verification of every waste stream consists of initial sampling and analysis of all compounds on the list of analytes and periodic sampling and analysis to verify the waste has not changed; what analytical procedures and QA/QC protocol is used to verify this?</p> <p>Response: accept, will add the following text to Section 6.1; "Analytical methods and QA/QC protocol are specified in each SAP or sampling document. This allows for method development, however all methods must meet HASQARD criteria to be acceptable."</p> <p>Ecology Response: Disagree; a TSAP for each DST is not included in this permit application. Within the WAP identify QA/QC elements which are important to the TSD unit that ensure sampling activities will result in data from the laboratory that is acceptable for the decisions made from the data. Using appropriate sample containers and equipment Using representative sampling methods Following Chain-of-Custody procedures Using Field QA/QC samples</p>	WAC 173-303-300(5)(b)(c)
7	Appendix 3A Page 23 Section 6.1.2	<p>For verification of waste received by the DST system, what is the frequency of sampling when a discrepancy is identified?</p> <p>Response: Sampling of each batch is required. See response to No. 6.</p> <p>Ecology Response: Disagree; a TSAP for each DST is not included in this permit application. Within this WAP identify QA/QC elements which are important to the TSD unit that ensure sampling activities will result in data from the laboratory that is acceptable for the decisions made from the data.</p>	WAC 173-303-300(5)(d)

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No.	Position in Document	Comments/Response Chapter 3 & Appendix 3A	Regulatory Citation
8	Appendix 3A Page 23 Section 6.0	<p>What are the sampling and analysis requirements for verification of incoming wastes since the greatest potential for compatibility problems is from mixing different incoming waste with waste already in the DST?</p> <p>Response: accept, will add the following text to section 6.0; "Sampling and analysis requirements for non-TF generators are defined under the waste compatibility program and are implemented through the waste compatibility DQO HNF-SD-WM-DQO-001 and sampling and analysis documentation. Appendix B of this WAP includes HNF-SD-WM-DQO-001."</p> <p>Ecology Response: Disagree; document HNF-SD-WM-DQO-001 states that the generator or shipper is responsible for obtaining and analyzing two independent samples for waste entering the DST system from outside generators or shippers. There is no language regarding verification of waste. Is this verification sampling? Verification sampling should consist of periodic sampling and analysis to verify and document the expected waste composition with that noted on the WSPS. Add text to indicate appropriate actions to take in the event of unforeseen events, discrepancies between waste and WSPS.</p>	WAC 173-303-(5)(b), 110 (2)(a)
9	Appendix 3A Page 22 Section 5.2	<p>The statement "Analytical methods will be selected from those routinely used by Hanford Site...." Does not adequately define method selection. State specifically what analytical methods are being utilized (i.e. SW-846)</p> <p>Response: accept, see response to Number #5 above.</p> <p>Ecology Response: Disagree; see response to Number 5 above.</p>	WAC 173-303-110
10	List of Terms	<p>Since the Hanford Federal Facility Agreement and Consent Order is frequently referred to as the Tri-Party Agreement (TPA); include this acronym in the list of terms.</p> <p>Response: accept will include in the list of terms.</p> <p>Ecology Response: Accept, upon Ecology approval of the revised text.</p>	
11	Section 2.0, line 3	<p>The statement is made that incidental treatment occurs. Since incidental means unpredictable and minor, the treatment conditions described in 2.1 are intentional. Revise the text in section 2.0 to reflect the need for intentional treatment in DSTs.</p> <p>Response: accept, text will be revised to delete the phrase "incidental treatment." Wording will be added to describe intentional treatment that is performed at the DST's (i.e. caustic addition etc.,).</p> <p>Ecology Response: Provide text for clarity and enforceability.</p>	

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12	Table 2.3	<p>Although manifests are not involved in DST transfers, revise the text to indicate the appropriate waste transfer documentation in waste manifests or transfer data sheets.</p> <p>Response: accept will revise.</p> <p>Ecology Response: Agree, provide text for clarity and enforceability.</p>	
13	Section 2.1.1.6	<p>Are waste transfer data sheets completed for DST-DST system transfers? The text is not clear. Clarify text</p> <p>Response: accept text will be clarified.</p> <p>Ecology Response: Agree; provide text for clarity and enforceability.</p>	
14	Section 2.1.2.4 line 3	<p>Revise the text to read The chemicals that are placed....</p> <p>Response: accept, will revise the text to read: "The chemicals that are produced..."</p> <p>Ecology Response: Agree; provide text for clarity and enforceability.</p>	editorial
15	Section 2.2 3 rd Paragraph	<p>Revise the following text. "The quantity of these solids sent to the DST system will depend on the criteria established for SST closure." The criteria for closure of SSTs with regards to quantity (volume) have been determined in milestone M-45-00. By knowing how much waste can remain in a SST and the volume currently in the tank, the quantity of solids sent to the DST can be determined.</p> <p>Response: reject this information is not relevant for permitting purposes. The original text will be struck from appendix 3A.</p> <p>Ecology Response: Accept, upon Ecology approval of the revised text.</p>	TPA milestone M-45-00
16	Section 3.1	<p>Do the selected parameters change from waste stream to waste stream?</p> <p>Response: accept, standard parameters are defined in Section V of the Waste Stream Profile Sheet(WSPS). Additional analytes may be added to the list if there is a particular concern about a stream. An example would be caustic demand.</p> <p>Ecology Response: Disagree; the WAP is not solely for the purpose of addressing compatibility. WAC 173-303-300 requires the facility owner or operator to confirm his knowledge about a dangerous waste before he stores, treats, or disposes of it. The owner or operator must obtain detailed chemical, physical, and/or biological analysis of a dangerous waste or non-dangerous wastes.</p>	

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17	Section 3.2	<p>Conflicting statements: Paragraph 2 states that the parameter selection is based on parameters pertaining to accepting wastes from sources outside the DST system and those concerning waste movement within the DST system. Section 3.1 states that sampling and analysis is required only for parameters considered important for safe handling. Are the selected parameters based only on safety or on waste acceptance criteria?</p> <p>Response: accept, analytes required by the compatibility program are not based solely on safety, but also take into account operational and programmatic requirements which include appropriate regulatory drivers. Text will revised in section 3.1 to be consistent.</p> <p>Ecology Response: Agree; provide text for clarity and enforceability.</p>	
18	Section 4.5 2 nd Paragraph	<p>The chain of custody should include information indicating what analysis is required with the preferred method stated.</p> <p>Response: accept, tank sampling and analysis plans (TSAP)s assign individual sample numbers and associated tank riser numbers, prior to sampling. Non-TF generators follow the same approach in their individual sampling plans. The pre-assigned individual sampling numbers are used to fill out chain of custodies prior to sampling events. Preferred methods are indicated per individual sample number within the TSAPs or sampling documents. This will be clarified within Section 4.5 of the DST waste analysis plan.</p> <p>Ecology Response: Disagree; TSAPs are not regulatory documents thus are subject to changes. Include text in this WAP to address chain-of-custody procedures.</p>	
19	Section 5.1	<p>The laboratory performing analytical analysis should submit a laboratory quality assurance plan or manual prior to selection of the laboratory for waste analysis.</p> <p>Response: accept Quality Assurance /Quality Control (QA/QC) plans are part of the sampling and analysis plans. The sampling and analysis plans (SAP) must be approved prior to implementation. Any issues with QA/QC are resolved prior to SAP approval.</p> <p>Ecology Response: Agree; however, the continual overlapping of the acronyms TSAP and SAP is confusing. There are regulatory requirements for SAPs but not TSAPs. If there are not SAPs for each of the DSTs, stop referring to documents that do not exist. Include all information in this WAP. Correct text for clarity and enforceability.</p>	

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No.	Position in Document	Comments/Response Chapter 3 & Appendix 3A	Regulatory Citation
20	Section 8.0	<p>Certain DQOs are vital to the safe transfer of waste be it from SST to DST or DST to DST; no reference was made to any DQO specifically the Corrosion DQO and Compatibility DQO. Review your references and include all DQOs related to the characterization and transfer of waste.</p> <p>Response: accept, will reference all applicable DQOs.</p> <p>Ecology Response: Agree, upon Ecology approval of revised references.</p>	

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No.	Position in Document	Comments/Response Chapter 12	Regulatory Citation
1	Chapter 12 Page 12-1, line 2	<p>Insert the following paragraph on line 2. "The Double Shell Tank (DST) System is subject to the reporting and recordkeeping requirements of Dangerous Waste Regulations (WAC 173-303), Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities (40 CFR 264), and Land Disposal Restrictions (40 CFR 268)."</p> <p>Response: accept will add language.</p> <p>Ecology Response: Provide text for clarity and enforceability.</p>	
2	Page 12-1, line 2	<p>Line 2, modify text to read: "Reporting are recordkeeping requirements that could be are applicable to the Hanford...."</p> <p>Response: accept will revise accordingly.</p> <p>Ecology Response: Provide text for clarity and enforceability.</p>	
3	Page 12-1, line 3	<p>Line 3, modify text to read: "...Chapter 12.0 of the Hanford Facility Dangerous Waste Permit Application General Information ..."</p> <p>Response: accept will revise accordingly.</p> <p>Ecology Response: Provide text for clarity and enforceability</p>	
4	Page 12-1, line 2	<p>Add the following reporting and recordkeeping requirements to the first bulleted list: Closure plan changes; Monitoring and records; Certification of construction or modifications; Reporting planned changes; Engineering change notices and nonconformance reports; As-built drawings; Equivalent materials; Schedule extensions; Occurrence reports; Deed notification and closure certification; Waste location; and Waste analysis and analytical data..</p> <p>Response: accept will revise accordingly.</p> <p>Ecology Response: Provide text for clarity and enforceability.</p>	WAC 173-303-380
5	Page 12-1, line 2	<p>Add the following reporting and recordkeeping requirements to the second bulleted list: Annual noncompliance report, Annual dangerous waste report, and Annual land disposal restriction report.</p> <p>Response: accept will revise accordingly.</p> <p>Ecology Response: Provide text for clarity and enforceability.</p>	WAC 173-303-390

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No.	Position in Document	Comments/Response Chapter 13	Regulatory Citation
1	Chapter 13	<p>Modify text on line 2 to read: "...DST System is discussed in Chapter 13 of the Hanford Facility Dangerous Waste Permit Application General Information Portion...."</p> <p><i>Response: accept will revise accordingly.</i></p> <p>Ecology Response: Provide text for clarity and enforceability.</p>	
2	Chapter 13	<p>After each applicable law add the text " , as amended."</p> <p><i>Response: accept will revise accordingly.</i></p> <p>Ecology Response: Provide text for clarity and enforceability.</p>	
3	Chapter 13	<p>Add the following applicable law: "Model Toxics Control Act, as amended"</p> <p><i>Response: reject, MTCA is only applicable for establishing closure standards per WAC-173-303-610 (2)(b)(i). Listing it here would imply that it is applicable to RCRA permit applications in its entirety.</i></p> <p>Ecology Response: Accept</p>	WAC 173-303-806(4)(a)(xix)

ID		Task Name	Duration	Start	Finish	2005				2006		
						Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
1	✓	Ecology Review Response Table	108 days	Wed 6/9/04	Fri 11/5/04							
2		NOD Workshop to Resolve Issues	153 days	Mon 11/1/04	Mon 6/6/05							
3		Responses Ch. 3, 10, 12, 13 & App. 3A	6 days	Mon 11/1/04	Mon 11/8/04							
4		Responses Ch. 7, 8 & App. 7 A, 7B, 8A	15 days	Tue 11/9/04	Wed 12/1/04							
5		Letter AEA/SEPA Status; or Misc., Ch. 1, 2, & 11	30 days	Thu 12/2/04	Thu 1/13/05							
6		Responses Ch. 4, 5, 6, App. 4ABCD, 6A, 11A, 11B	30 days	Fri 1/14/05	Thu 2/24/05							
7		Workshop on Ch. 3, 10, 12, 13 & App. 3A	30 days	Tue 11/9/04	Wed 12/22/04							
8		Workshop on Ch. 7, 8 & App. 7 A, 7B, 8A	30 days	Thu 12/2/04	Thu 1/13/05							
9		Workshop on AEA/SEPA Status; or Ch. 1, 2, & 11	30 days	Fri 1/14/05	Thu 2/24/05							
10		Workshop on Ch. 4, 5, 6, App. 4ABCD, 6A, 11A, 11B	30 days	Fri 2/25/05	Thu 4/7/05							
11		Final Workshop Actions	30 days	Fri 4/8/05	Thu 5/19/05							
12		Prepare and Issue NOD	12 days	Fri 5/20/05	Mon 6/6/05							
13		DOE ORP/RL Issue Revision 1	86 days	Tue 6/7/05	Tue 10/4/05							
14		Rev. 1 Ecology Review/Issue NODs	43 days	Wed 10/5/05	Fri 12/2/05							
15		Rev. 1 Project Manager's Issue Resolution	21 days	Mon 12/5/05	Mon 1/2/06							
16		DOE ORP/RL Page Change Revisions	44 days	Tue 1/3/06	Fri 3/3/06							
17		Ecology Issues Completeness Review	10 days	Mon 3/6/06	Fri 3/17/06							
18		Ecology Prepares Draft Permit/Permit Modification	42 days	Mon 3/6/06	Tue 5/2/06							
19		Public Notification	22 days	Wed 5/3/06	Thu 6/1/06							
20		Public Review	64 days	Fri 6/2/06	Wed 8/30/06							
21		Public Hearing	1 day	Thu 8/31/06	Thu 8/31/06							
22		Issue Permit or Permit Modification	15 days	Thu 8/31/06	Wed 9/20/06							

Project: DST Permit Review Recovery
Date: Mon 11/8/04

Task



Milestone



External Tasks



Split



Summary



External Milestone



Progress



Project Summary



Deadline

